

In the Office Action of January 11, 2002, the Examiner set forth a number of grounds for rejection. These grounds are addressed individually and in detail below.

Priority

Applicants respectfully assert that the above-identified application is not entitled to a claim for priority. Therefore, Applicants do not need to file a certified copy of the foreign application as required by 35 U.S.C. 119(b).

Rejections Under 35 U.S.C. § 103

Claims 1-9 stand rejected under 35 U.S.C. 103(a) as being obvious over Buell US 3,309,363 in view of Deguchi et al., USPN 5,395,742 for the reasons set forth on pages 2-3 of the Office Action.

The Examiner has found Applicants' previous arguments to be unpersuasive. The Examiner states that the Buell reference teaches dihydroxypropylamino substituent on the triazine ring, and the Deguchi reference teaches both sulfoethylamine group and hydroxyalkylamino groups on the triazine ring. The Examiner asserts that there is a clear equivalency teaching of these substituents, hence it would be obvious for one skilled in the art to combine Buell with Deguchi. Applicants respectfully traverse the rejection.

The present invention discloses a 4, 4'-bis(1,3,5-triazinylamino)stilbene-2,2'-disulfonic acid derivative in which each triazine ring contains two **different** substituents, for example, a sulfoalkylamino and aminoalkyl with two or more hydroxy.

In contrast, Buell teaches a 4, 4'-bis(1,3,5-triazinylamino)stilbene-2,2'-disulfonic acid in which the triazine ring contains two **identical** dihydroxypropylamino groups. In fact, the "identical substituent" structure is critical to Buell's invention. As shown in the table in columns 5 and 6 of Buell, triazine rings with different substituents result in loss of strength in resin-cationic softener applications. Therefore, Buell only teaches the use of paired dihydroxypropylamino groups, and it teaches away from using different substituents on the triazine ring.

Deguchi teaches a compound having both sulfoethylamine group and hydroxyalkylamino group on the triazine ring (SR21 in the table in columns 7-8). However, the hydroxyalkylamino group of SR 21 is $-NHC_2H_4OH$, which does not satisfy the condition of the present invention. As disclosed in the present specification, compounds with hydroxyalkylamino groups analogous to that of SR 21 in combination with the sulfonylalkylamino group never give satisfactory effects (pages 28-29, comparative compounds a, b, c and d).

When applying 35 U.S.C. § 103, the Examiner is required to adhere to the following tenets of patent law: (1) The claimed invention must be considered as a whole; (2) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination; (3) The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and (4) Reasonable expectation of success is the standard with which obviousness is determined. (MPEP, 2141.01).

Accordingly, the CAFC in *In re Sang Su Lee* states teaching of references can be combined only if there is some suggestion or incentive to do so. *In re Sang Su Lee*, (Fed. Cir. January 18, 2002) (quoting *Acs Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577 (Fed. Cir. 1984)). Particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed. *Id.* Furthermore, the Court states even when the level of skill in the art is high, the Board must explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious. *Id.*

In this case, Buell teaches a 4, 4'-bis(1,3,5-triazinylamino)stilbene-2,2'-disulfonic acid in which the triazine ring contains two **identical** dihydroxypropylamino groups. The

"identical substituent" structure is critical to Buell's invention. In fact, any modification would destroy Buell's invention, which was further illustrated in the table of Example 5 of the Buell reference. One skilled in the art, based on Buell's teaching, will refrain from introducing different substituents onto the same triazine ring. Thus, Buell provides no motivation to combine a dihydroxypropylamino group with the sulfoethylamine group of Deguchi on the same triazine ring.

Therefore, a *prima facie* case of obviousness has not been presented.

In the Office Action, claims 1-9 also stand rejected under 35 U.S.C. 103(a) as being obvious over Crounse et al. USPN 3,193,548 in view of Deguchi et al. USPN 5,395,742 for the reasons set forth on pages 3-4 of the Office Action. The Examiner states that the Crounse reference "teaches hydroxyalkyloxyalkylamino group on triazine with equivalency teaching of one or more hydroxyl on alkylamino group and the secondary reference, as noted above, teaches both sulfonyl amino group as required by the instant claims and hydroxyalkylamino groups on the triazine ring. There is a clear equivalency teaching of these two groups. Hence one trained in the art would have been motivated to combine" the references of Crounse and Deguchi.

Applicants respectfully traverse the rejection. To establish a *prima facie* case of obviousness of a claimed invention, all claim

limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

The triazinylstilbenes of Crounse have two triazine rings, one of which contains a hydroxy-oxaalkylamino group (Y_1). One skilled in the art will realize that the triazinylstilbenes with the hydroxy-oxaalkylamino group belong to a type that is different from the present invention.

The Examiner's statement that "hydroxyalkyloxyalkylamino group on triazine with equivalency teaching of one or more hydroxy on alkylamino group" is understood to be derived from the definitions for $-NZ_1Z_2$ in which each of Z_1 and Z_2 may be hydroxy-lower alkyl (col. 1, lines 35-41).

With regard to the diaminostilbene of the present invention, an hydroxyalkyloxyalkylamino group is not equivalent to the hydroxyalkylamino group, as experimentally shown on pages 28-29 of the present specification.

Therefore, the references of Crounse and Deguchi do not support a *prima facie* case of obviousness. The grounds for this rejection have obviated and withdrawal of the 35 U.S.C. § 103 rejection is respectfully requested.

Accordingly, in view of the above remarks, reconsideration of the rejections and allowance of the claims of the present application is respectfully requested.

CONCLUSION

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance.

Prompt and favorable consideration of this response is respectfully requested.

Pursuant to 37 C.F.R. § 1.17 and 1.136(a), Applicants respectfully petition a one (1) month extension of time for filing a response in connection with the present application. The required fee of \$110.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and further replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees

required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17;
particularly, extension of time fees.

Respectfully submitted,

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